

METHOD FOR GROWING SEMICONDUCTOR CRYSTAL

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Abstract

PURPOSE: To uniformly grow an SiC crystal film having a thickness controlled on the order of an atomic layer by CVD on the entire surface of a substrate having a large area by alternately introducing a mixture of gaseous hydrogen chloride with gaseous silicon chloride and gaseous hydrocarbon into a growth system.

CONSTITUTION: When an SiC crystal is grown by CVD with gaseous silicon chloride and gaseous hydrocarbon as starting materials, a mixture of gaseous hydrogen chloride with gaseous silicon chloride such as SiH_2Cl_2 and gaseous hydrocarbon such as C_2H_2 are alternately introduced into a growth system and an SiC crystal film is grown. Gaseous carbon chloride may be introduced in place of the gaseous hydrocarbon.